

INTERNATIONAL SEARCH REPORT

International application No.

PCT/SE 2004/000893

A. CLASSIFICATION OF SUBJECT MATTER

IPC7: F16B 2/00, F16B 21/00, G21B 9/08

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: F16B, G12B, G21K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-INTERNAL, WPI

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|-----------|---|-----------------------|
| A | US 4195414 A (R.RAYMOND G.ROBINSON), 1 April 1980 (01.04.1980), whole document | 1-12 |
| | -- | |
| A | GB 1200358 A (WARREN FASTENER CO ET AL), 29 July 1970 (29.07.1970), whole document | 1-12 |
| | -- | |
| A | US 6036398 A (A.THEODOROU), 14 March 2000 (14.03.2000), whole document | 1-12 |
| | -- | |
| | ----- | |

☐ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member-of the same patent family

Date of the actual completion of the international search

20 Sept 2004

Date of mailing of the international search report

23 -09- 2004

Name and mailing address of the ISA/

Swedish Patent Office

Box 5055, S-102 42 STOCKHOLM

Facsimile No. +46 8 666 02 86

Authorized officer

Ender Dag /itw

Telephone No. +46 8 782 25 00

INTERNATIONAL SEARCH REPORT

Information on patent family members

03/09/2004

International application No.

PCT/SE 2004/000893

US 4195414 A 01/04/1980 NONE

| | | | | | | | |
|----|---------|---|------------|----|---------|---|------------|
| GB | 1200358 | A | 29/07/1970 | AU | 432573 | B | 12/02/1973 |
| | | | | AU | 2729167 | A | 27/03/1969 |
| | | | | DE | 1625497 | B | 23/09/1971 |
| | | | | FR | 1544164 | A | 31/10/1968 |
| | | | | US | 3354597 | A | 28/11/1967 |

| | | | | | | | |
|----|---------|---|------------|----|----------|-----|------------|
| US | 6036398 | A | 14/03/2000 | CA | 2335543 | A | 29/12/1999 |
| | | | | DE | 69911611 | D | 00/00/0000 |
| | | | | EP | 1097307 | A,B | 09/05/2001 |
| | | | | ES | 2209459 | T | 16/06/2004 |
| | | | | WO | 9967541 | A | 29/12/1999 |

INTERNATIONAL SEARCH REPORT

International application No.
PCT/SE 2004/000893

| A. CLASSIFICATION OF SUBJECT MATTER | | | | |
|--|--|--|--|--|
| IPC7: F16B 2/00, F16B 21/00, G12B 9/08 According to International Patent Classification (IPC) or to both national classification and IPC | | | | |
| B. FIELDS SEARCHED | | | | |
| Minimum documentation searched (classification system followed by classification symbols) | | | | |
| IPC7: F16B, G12B, G21K | | | | |
| Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched | | | | |
| SE,DK,FI,NO classes as above | | | | |
| Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) | | | | |
| EPO-INTERNAL, WPI | | | | |
| C. DOCUMENTS CONSIDERED TO BE RELEVANT | | | | |
| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. | | |
| A | US 4195414 A (R.RAYMOND G.ROBINSON), 1 April 1980 (01.04.1980), whole document -- | 1-12 | | |
| A | GB 1200358 A (WARREN FASTENER CO ET AL), 29 July 1970 (29.07.1970), whole document -- | 1-12 | | |
| A | US 6036398 A (A.THEODOROU), 14 March 2000 (14.03.2000), whole document -- ----- | 1-12 | | |
| <input type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> See patent family annex. | | | | |
| <table border="0"> <tr> <td> * Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed </td> <td> "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family </td> </tr> </table> | | | * Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed | "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family |
| * Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed | "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family | | | |
| Date of the actual completion of the international search | | Date of mailing of the international search report | | |
| 16 November 2004 | | 09 -12- 2004 | | |
| Name and mailing address of the ISA/ Swedish Patent Office Box 5055, S-102 42 STOCKHOLM Facsimile No. +46 8 666 02 86 | | Authorized officer Ender Dag /itw Telephone No. +46 8 782 25 00 | | |

INTERNATIONAL SEARCH REPORT

International application No.

PCT/SE 2004/000893

| | | | | | | |
|----|---------|---|------------|------|-------------|------------|
| US | 4195414 | A | 01/04/1980 | NONE | | |
| GB | 1200358 | A | 29/07/1970 | AU | 432573 B | 12/02/1973 |
| | | | | AU | 2729167 A | 27/03/1969 |
| | | | | DE | 1625497 B | 23/09/1971 |
| | | | | FR | 1544164 A | 31/10/1968 |
| | | | | US | 3354597 A | 28/11/1967 |
| US | 6036398 | A | 14/03/2000 | CA | 2335543 A | 29/12/1999 |
| | | | | DE | 69911611 D | 00/00/0000 |
| | | | | EP | 1097307 A,B | 09/05/2001 |
| | | | | ES | 2209459 T | 16/06/2004 |
| | | | | WO | 9967541 A | 29/12/1999 |